

WHAT IS CLAIMED IS:

1. A secondary power source, which comprises a positive electrode containing activated carbon, a negative electrode containing a carbon material capable of doping and undoping lithium ions, and an organic electrolyte containing a lithium salt, wherein the negative electrode has a density of from 0.6 to 1.2 g/cm³.
2. The secondary power source according to Claim 1, wherein the carbon material contained in the negative electrode has a lattice spacing of [002] face of from 0.335 to 0.410 nm as measured by X-ray diffraction.
3. The secondary power source according to Claim 1, wherein the negative electrode contains vapor grown carbon fibers, and the carbon fibers are contained in an amount of from 5 to 30% based on the total mass of the negative electrode.
4. The secondary power source according to Claim 3, wherein the carbon fibers have a lattice spacing of [002] face of from 0.336 to 0.337 nm as measured by X-ray diffraction.
5. The secondary power source according to Claim 1, wherein the negative electrode contains a binder in an amount of from 5 to 30% based on the total mass of the negative electrode.
6. The secondary power source according to Claim 5, wherein the binder is polyvinylidene fluoride.
7. The secondary power source according to Claim 1,

wherein the activated carbon has a specific surface area of from 800 to 3,000 m²/g.

8. The secondary power source according to Claim 1, wherein the organic electrolyte comprises as a solvent at least one member selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate, dimethyl carbonate, ethylmethyl carbonate, diethyl carbonate, sulfolane and dimethoxyethane, and as the lithium salt at least one member selected from the group consisting of LiPF₆, LiBF₄, LiClO₄, LiN(SO₂CF₃)₂, LiN(SO₂C₂F₅)₂, CF₃SO₃Li, LiC(SO₂CF₃)₃, LiAsF₆ and LiSbF₆.

9. The secondary power source according to Claim 3, wherein the negative electrode contains a binder in an amount of from 5 to 30% based on the total mass of the negative electrode.

10. The secondary power source according to Claim 9, wherein the binder is polyvinylidene fluoride.

11. A secondary power source, which comprises a positive electrode containing activated carbon, a negative electrode containing a carbon material capable of doping and undoping lithium ions, and an organic electrolyte containing a lithium salt, wherein the negative electrode has a density of from 0.7 to 1.0 g/cm³.

12. The secondary power source according to Claim 11, wherein the carbon material contained in the negative electrode has a lattice spacing of [002] face of from 0.335 to 0.410 nm as measured by X-ray diffraction.

2025-03-04 10:00:00



10

wherein the binder is polyvinylidene fluoride.